

(FILE 'HOME' ENTERED AT 13:56:30 ON 03 SEP 2003)

FILE 'CAPLUS, MEDLINE, EMBASE, BIOSIS, LIFESCI' ENTERED AT 13:57:07 ON 03 SEP 2003

L1 31496 S FIBROBLAST-SPECIFIC OR (FGF)  
L2 209293 S IL-2 OR INTERLEUKIN-2  
L3 222 S L1 AND L2  
L4 26854 S NF200 OR NEUROFILAMENT  
L5 1 S L3 AND L4  
L6 5 S NF200 AND L1  
L7 3 DUP REM L6 (2 DUPLICATES REMOVED)  
L8 24 S OCT!4  
L9 1124 S OCT-4 OR OCT4  
L10 11 S L9 AND L1  
L11 5 DUP REM L10 (6 DUPLICATES REMOVED)  
L12 76 S EMBRYOID AND L1  
L13 33 DUP REM L12 (43 DUPLICATES REMOVED)  
L14 14 S L13 AND PY<=2000

AB Embryonic stem cells (ESC) have been established previously from the inner cell mass cells of mouse blastocysts. In suspension culture, they spontaneously differentiate to blood-island-containing cystic **embryoid** bodies (CEB). The development of blood vessels from in situ differentiating endothelial cells of blood islands, a process which we call vasculogenesis, was induced by injecting ESC into the peritoneal cavity of syngeneic mice. In the peritoneum, fusion of blood islands and formation of an in vivo-like primary capillary plexus occurred. Transplantation of ESC and ESC-derived complex and cystic **embryoid** bodies (ESC-CEB) onto the quail chorioallantoic membrane (CAM) induced an angiogenic response, which was directed by nonyolk sac endoderm structures. Neither yolk sac endoderm from ESC-CEB nor normal mouse yolk sac tissue induced angiogenesis on the quail CAM. Extracts from ESC-CEB stimulated the proliferation of capillary endothelial cells in vitro. Mitogenic activity increase during in vitro culture and differentiation of ESC. Almost all growth factor activity was associated with the cells. The ESC-CEB derived endothelial cell growth factor bound to heparin-sepharose. The identification of acidic fibroblast growth factor (**FGF**) in heparin-sepharose-purified material was accomplished by immunoblot experiments involving antibodies against acidic and basic **FGF**. We conclude that vasculogenesis, the development of blood vessels from in situ differentiating endothelial cells, and angiogenesis, the sprouting of capillaries from preexisting vessels are very early events during embryogenesis which can be studied using ESC differentiating in vitro. Our results suggest that vasculogenesis and angiogenesis are differently regulated.

**Ton, Thaian**

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**From:** Ton, Thaian  
**Sent:** Wednesday, September 03, 2003 2:45 PM  
**To:** STIC-ILL  
**Cc:** Ton, Thaian  
**Subject:** Article Request

I would like to request the following

Histol Histopathol. 1997 Jan;12(1):33-41.

**k-FGF protooncogene expression is associated with murine testicular teratogenesis, but is not involved during mouse testicular development.**

**de Anta JM, Monzo M, Peris B, Ruano D.**

Thank you.

Thái-An N. Ton

Patent Examiner

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10/015,824

**Ton, Thaian**

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**From:** Ton, Thaian  
**Sent:** Wednesday, September 03, 2003 2:41 PM  
**To:** STIC-ILL  
**Cc:** Ton, Thaian  
**Subject:** Article Request

I would like to request the following:

Cancer Gene Ther. 1998 Mar-Apr;5(2):110-8.

**Immunization with interleukin-2-secreting allogeneic cells transfected with DNA from mouse melanoma cells induces immune responses that prolong the lives of mice with melanoma.**

**Sun T, Carr-Brendel V, De Zoeten EF, Cohen EP.**

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## Ton, Thaian

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**From:** Ton, Thaian  
**Sent:** Wednesday, September 03, 2003 2:08 PM  
**To:** STIC-ILL  
**Cc:** Ton, Thaian  
**Subject:** Article Request

**TITLE:** Vasculogenesis and angiogenesis in embryonic-stem-cell-derived embryoid bodies.

**AUTHOR:** Risau W; Sariola H; Zerwes H G; Sasse J; Ekblom P; Kemler R; Doetschman T

**CORPORATE SOURCE:** Max-Planck-Institut fur Entwicklungsbiologie Tübingen, FRG.

**SOURCE:** DEVELOPMENT, (1988 Mar) 102 (3) 471-8.

Journal code: 8701744. ISSN: 0950-1991.

Thank you very much.

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